

## PATENT COOPERATION TREATY

IPM JMS

From the INTERNATIONAL SEARCHING AUTHORITY

FEB 09 2004

PCT

To:  
DAVID J. LEVY  
GLAXOSMITHKLINE  
CORPORATE INTELLECTUAL PROPERTY DEPARTMENT  
FIVE MOORE DRIVE, PO BOX 13398  
RESEARCH TRIANGLE PARK, NC 27709

GLOBAL INTELLECTUAL PROPERTY

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

Date of Mailing  
(day/month/year) 02 FEB 2004Applicant's or agent's file reference  
PG4880WO

FOR FURTHER ACTION See paragraphs 1 and 4 below

International application No.  
PCT/US03/28690International filing date  
(day/month/year)

11 September 2003 (11.09.2003)

Applicant  
GLAXO GROUP LIMITED

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

**When?** The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

**Where?** Directly to the International Bureau of WIPO, 34, chemin des Colombettes  
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

**For more detailed instructions,** see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.
3. ☐ **With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:**
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
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**4. Reminders**

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90 *bis*.1 and 90 *bis*.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US  
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Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
Facsimile No. (703) 305-3230

Authorized officer  
Charles E. Cooley

Telephone No. (703) 308-0661

Form PCT/ISA/220 (April 2002)

(See notes on accompanying sheet)

Express Mail Label No.  
EV332064442US

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/28690

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01F 7/16

US CL : 366/314

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 366/314

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.      |
|------------|---|----------------------------|
| X          | US 4,867,573 A (TSUTSUI et al.) 19 September 1989 (19.09.1989), see Figure 9 and col. 12, line 51 through col. 13, line 4.  | 1-3, 10-12, 19-21          |
| ---        |   | -----                      |
| Y          |   | 4-9, 13-18, 22-26          |
| X          | US 6,253,762 B1 (BRITTO) 03 July 2001 (03.07.2001), see the Figure and col. 1, lines 63-67; col. 2, lines 1-10 and line 35-42; col. 4, lines 63-67; and col. 5, lines 1-63. | 19-26                      |
| ---        |   | -----                      |
| Y          |   | 4-9, 13-18, 22-26          |
| X          | US 6,245,578 B1 (MOLLOY) 12 June 2001 (12.06.2001), see Figures 1A and 2 and col. 3, lines 15-18; col. 5, lines 30-36; and col. 6, lines 5-10.                              | 1, 2, 6, 7, 19, 20, 23, 24 |
| X          | US 5,008,135 A (GIORDANO et al.) 16 April 1991 (16.04.1991), see entire document.   | 19-21                      |
| ---        |   | -----                      |
| Y          |   | 1-5, 10-13                 |
| Y          | US 5,456,586 A (CARSON) 10 October 1995 (10.10.1995), see Figures 1-2.  | 1-5, 10-13                 |
| Y          | US 6,428,199 B1 (RUPANER et al.) 06 August 2002 (06.08.2002), see the Figure.   | 1-5, 10-13                 |



Further documents are listed in the continuation of Box C.



See patent family annex.

|   |     |  |
|---|-----|--|
| * Special categories of cited documents:  | "T" | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |
| "A" document defining the general state of the art which is not considered to be of particular relevance  | "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone   |
| "E" earlier application or patent published on or after the international filing date   | "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "&" | document member of the same patent family  |
| "O" document referring to an oral disclosure, use, exhibition or other means  |     |  |
| "P" document published prior to the international filing date but later than the priority date claimed  |     |  |

Date of the actual completion of the international search

05 January 2004 (05.01.2004)

Date of mailing of the international search report

02 FEB 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
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# INTERNATIONAL SEARCH REPORT

PCT/US03/28690

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages     | Relevant to claim No.                   |
|------------|--|---|
| Y          | US 6,333,372 B1 (TOMIHASHI et al.) 25 December 2001 (25.12.2001), see entire document. | 8, 9, 17, 18, 25, 26                    |
| Y          | US 4,546,141 A (GEBAUER) 08 October 1985 (08.10.1985), see entire document.            | 2-5, 8, 9, 11-14, 17, 18, 20-22, 25, 26 |
| A          | US 3,900,684 A (EDWARDS et al.) 19 August 1975 (19.08.1975), see col. 2, lines 34-40.  | 1-26                                    |
| A          | US 4,835,018 A (HIGGINBOTHAM et al.) 30 May 1989 (30.05.1989), see entire document.    | 8, 9, 17, 18, 25, 26                    |

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## PCT

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